TOHO T2928G0

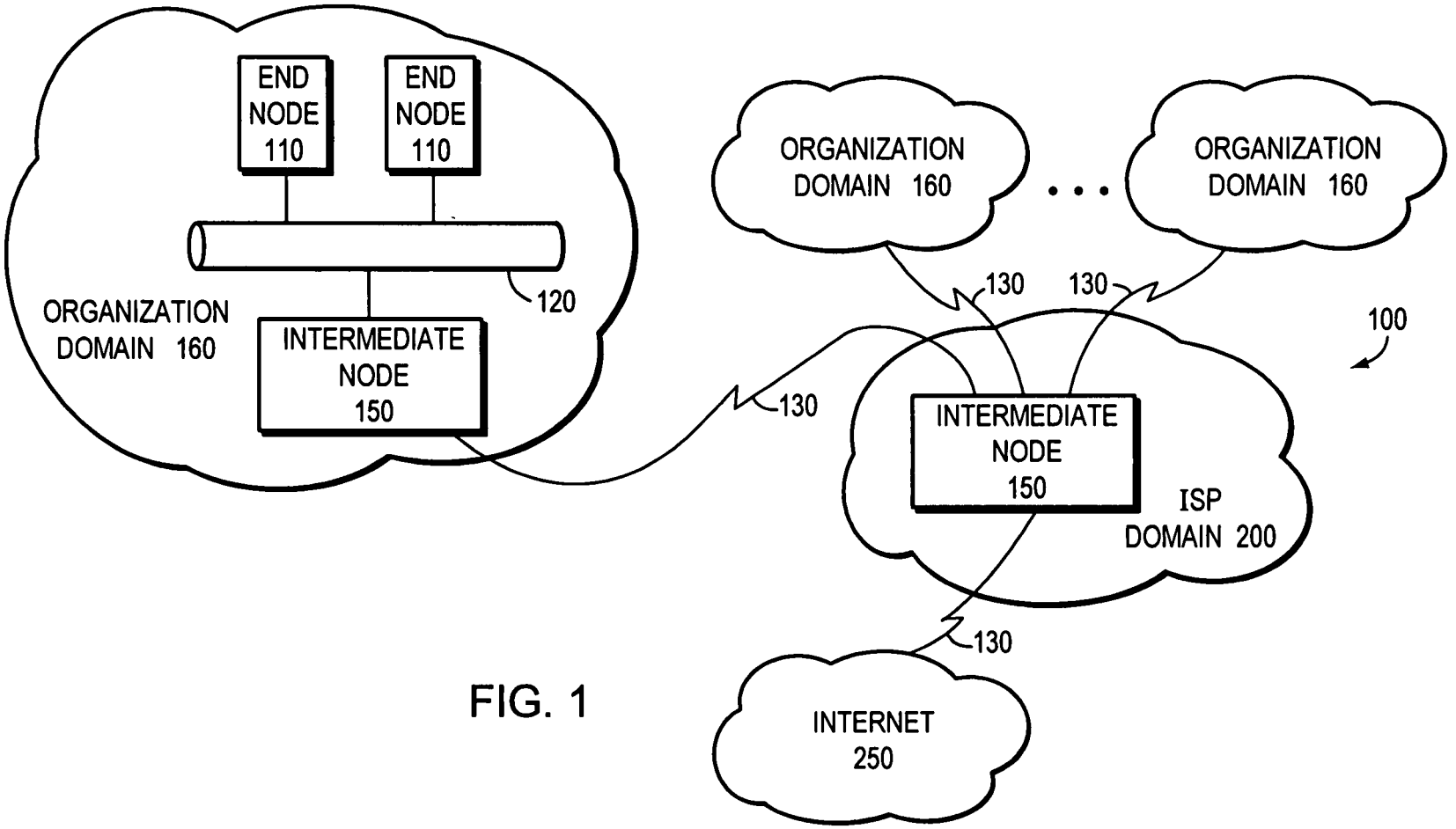

FIG. 1

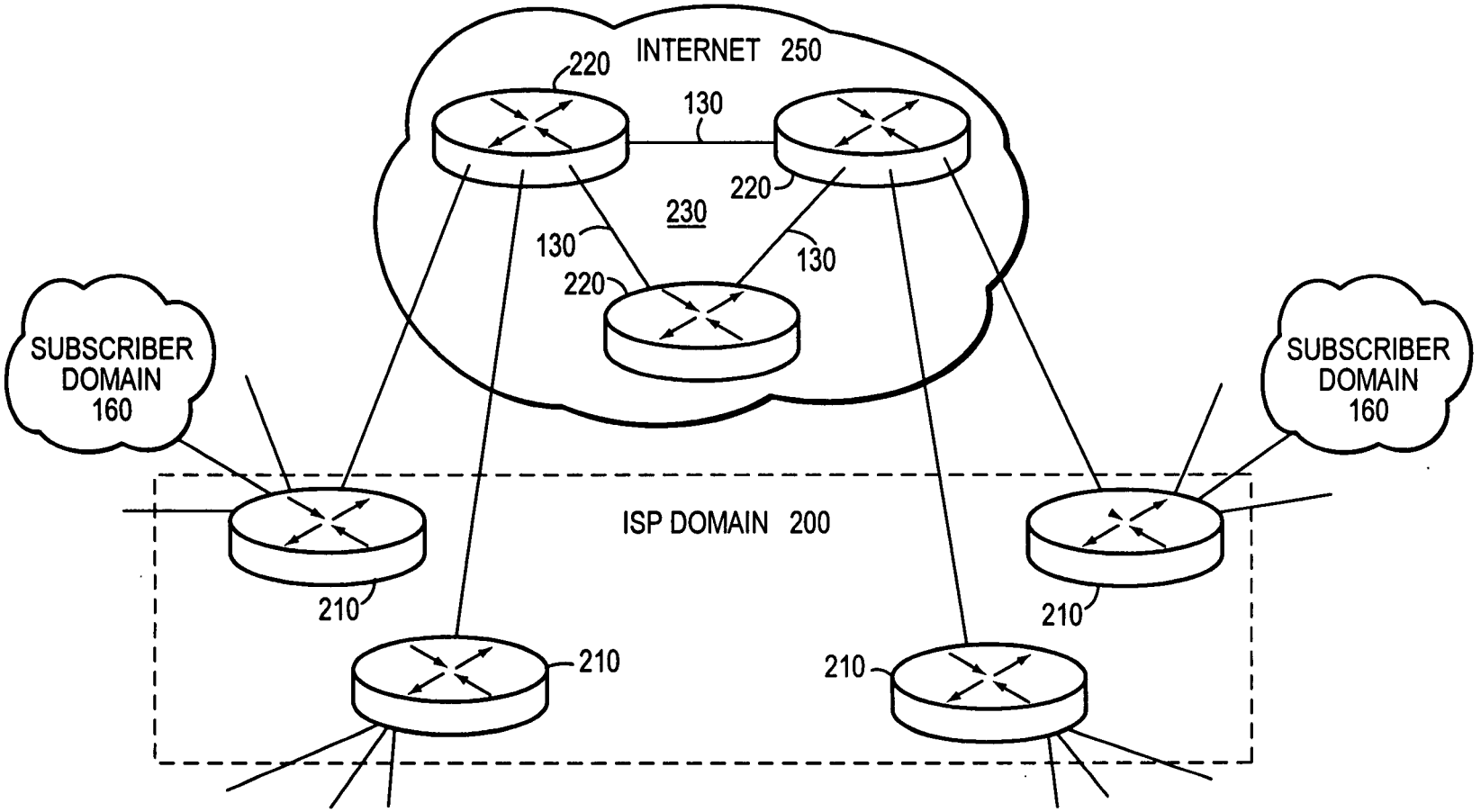
INTERNET 250
220
130
220
230
130
130
220
SUBSCRIBER DOMAIN 160
SUBSCRIBER DOMAIN 160
ISP DOMAIN 200
210
210
210
210

FIG. 2

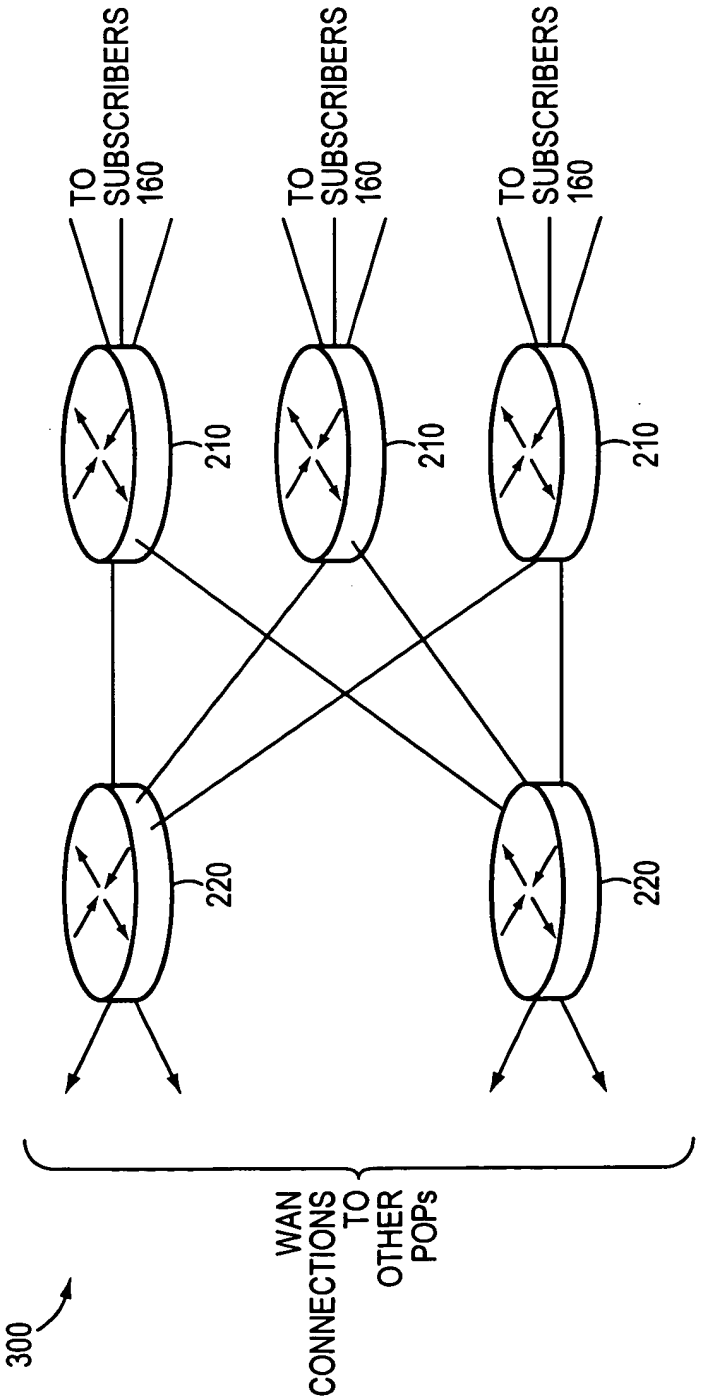
TO SUBSCRIBERS 160
TO SUBSCRIBERS 160
TO SUBSCRIBERS 160
210
210
210
220
220
WAN CONNECTIONS TO OTHER POPs
300

FIG. 3

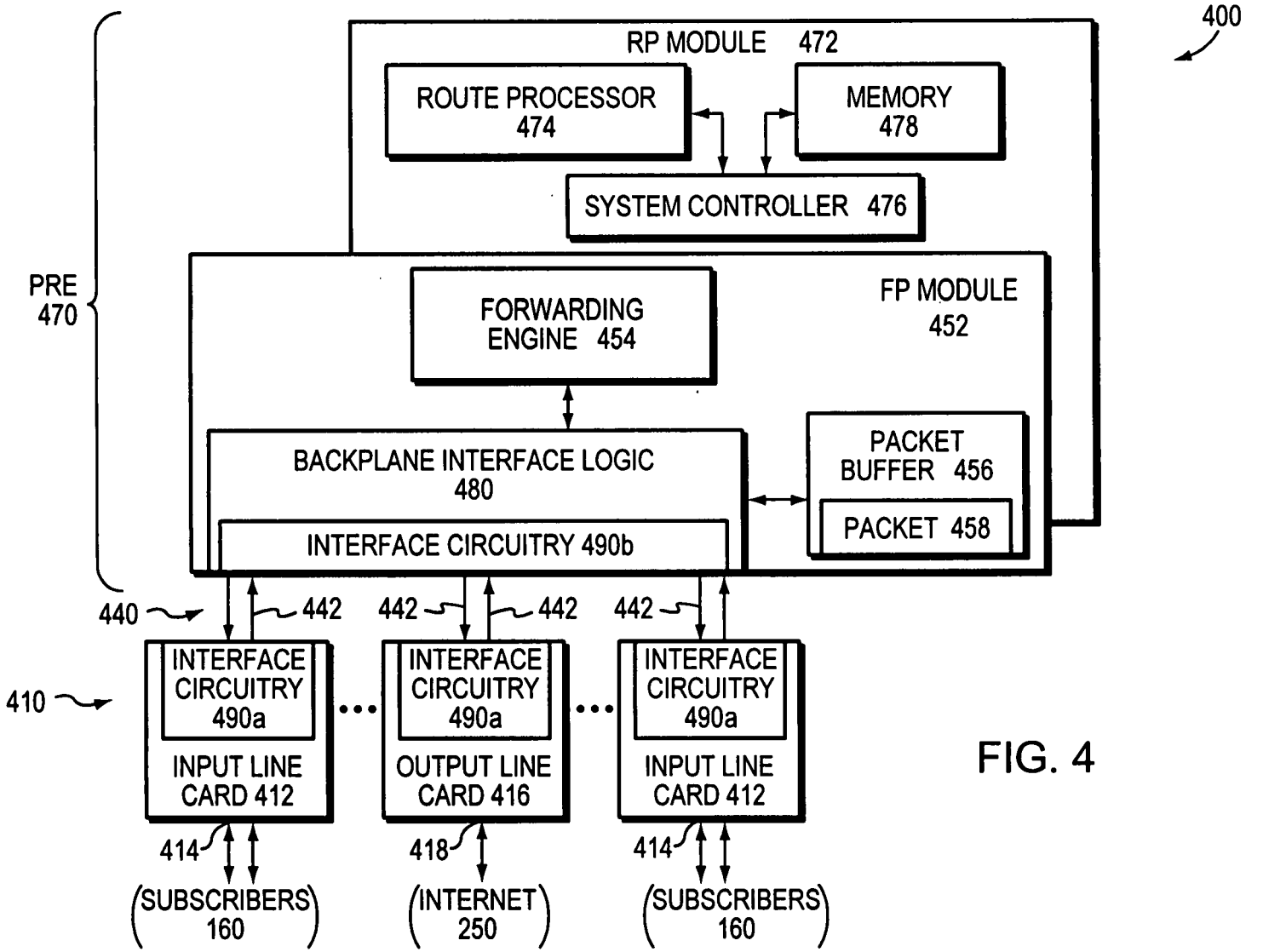
400
RP MODULE 472
ROUTE PROCESSOR 474
MEMORY 478
SYSTEM CONTROLLER 476
PRE 470
FORWARDING ENGINE 454
FP MODULE 452
BACKPLANE INTERFACE LOGIC 480
PACKET BUFFER 456
PACKET 458
INTERFACE CIRCUITRY 490b
440
442
442
442
442
410
INTERFACE CIRCUITRY 490a
INPUT LINE CARD 412
INTERFACE CIRCUITRY 490a
OUTPUT LINE CARD 416
INTERFACE CIRCUITRY 490a
INPUT LINE CARD 412
414
418
414
(SUBSCRIBERS 160)
(INTERNET 250)
(SUBSCRIBERS 160)

FIG. 4

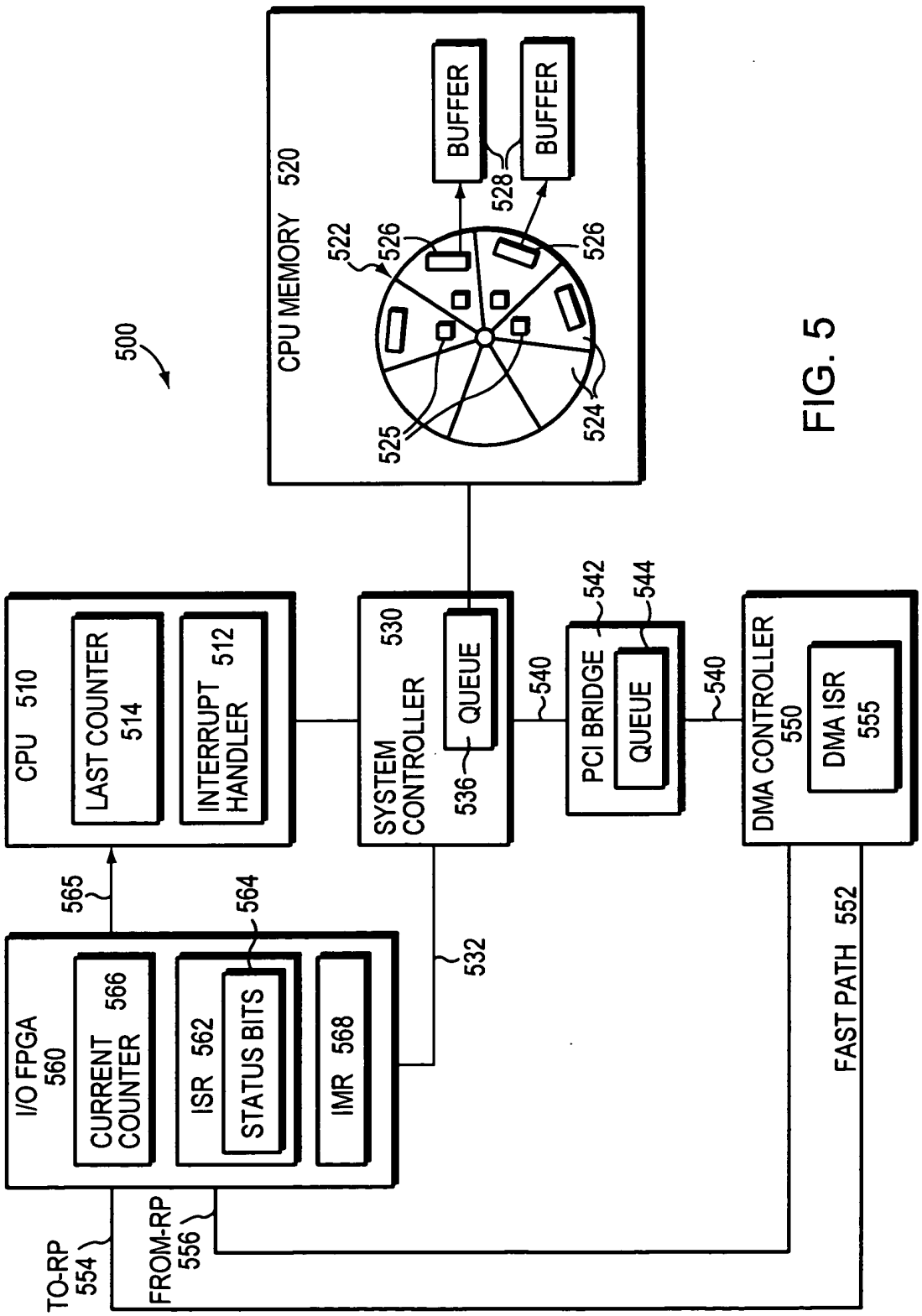
500
CPU MEMORY 520
BUFFER
BUFFER
528
522
526
526
525
524
CPU 510
LAST COUNTER 514
INTERRUPT HANDLER 512
SYSTEM CONTROLLER 530
QUEUE
536
540
PCI BRIDGE 542
QUEUE
544
540
DMA CONTROLLER 550
DMA ISR 555
565
564
532
I/O FPGA 560
CURRENT COUNTER 566
ISR 562
STATUS BITS
IMR 568
FAST PATH 552
TO-RP 554
FROM-RP 556

FIG. 5

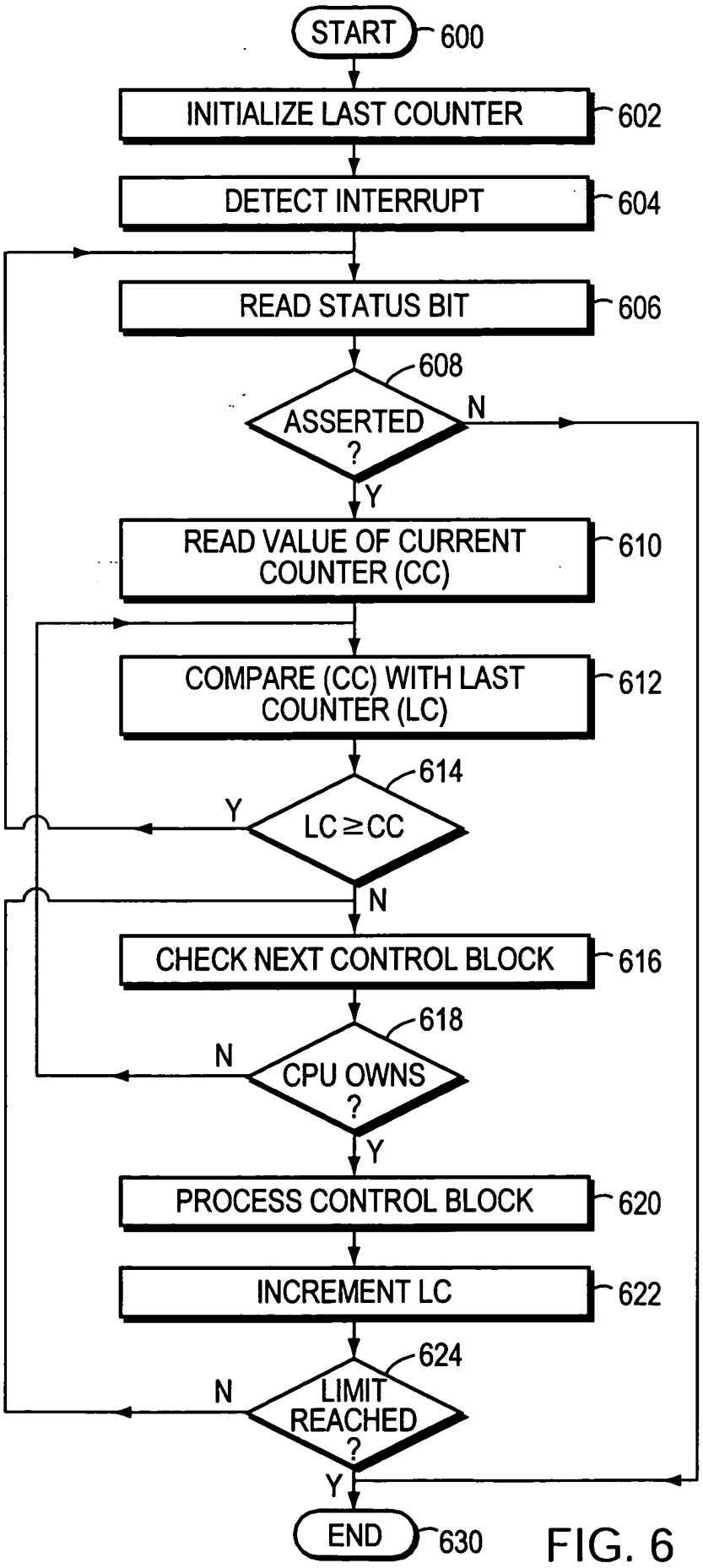
START
600
INITIALIZE LAST COUNTER
602
DETECT INTERRUPT
604
READ STATUS BIT
606
608
ASSERTED ?
N
Y
READ VALUE OF CURRENT COUNTER (CC)
610
COMPARE (CC) WITH LAST COUNTER (LC)
612
614
LC ≥ CC
Y
N
CHECK NEXT CONTROL BLOCK
616
618
CPU OWNS ?
N
Y
PROCESS CONTROL BLOCK
620
INCREMENT LC
622
624
LIMIT REACHED ?
N
Y
END
630

FIG. 6

TOHOKU T2392860

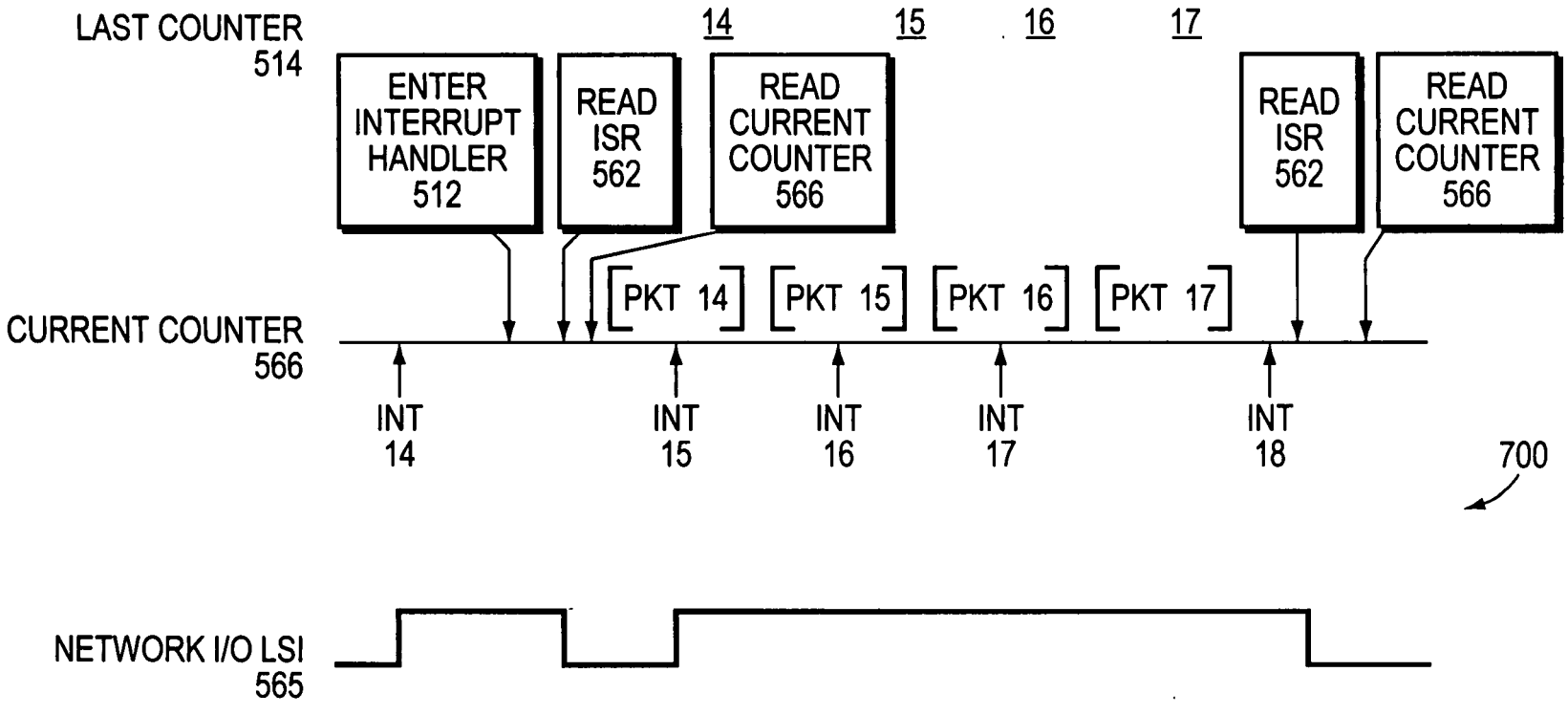

FIG. 7